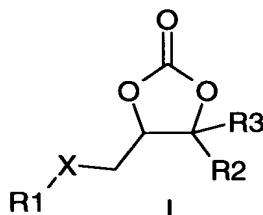


We claim:

1. Alkylglycidol carbonates of the formula I



in which the symbols X, R¹, R² and R³ have the following meanings:

R¹ is a linear or branched, substituted or unsubstituted C₃-C₂₉-alkyl group or a linear or branched, substituted or unsubstituted C₃-C₂₉-alkenyl group;

R² and R³, independently of one another, are hydrogen or a linear or branched alkyl group;

X is chosen from the group consisting of O, O(CH₂CHR⁴O)_n, S, NR⁵, COO and CONH, in which R⁴ and R⁵ are hydrogen, methyl, ethyl or propyl, and n is a number from 1 to 5, where mixtures of compounds with groups X of the formula O(CH₂CHR⁴O)_n are also included by the formula I, in which n has various numerical values.

2. Compounds as claimed in claim 1, wherein in formula I the symbols X, R¹, R² and R³ have the following meanings:

R¹ is a linear or branched C₃-C₁₈-alkyl group or a linear or branched C₃-C₁₈-alkenyl group;

R² and R³, independently of one another are hydrogen or a linear or branched alkyl group having 1 to 5 carbon atoms; and

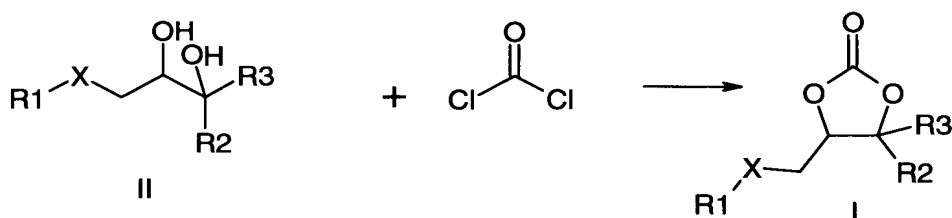
X is O, O(CH₂CHR⁴O)_n or NR⁵, in which R⁴ and R⁵ are hydrogen, methyl, ethyl or propyl and n is a number from 1 to 5, where mixtures of compounds with groups X of the formula O(CH₂CHR⁴O)_n are covered by the formula I, in which n can have various numerical values.

3. Compounds as claimed in claim 1 or 2, wherein

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R^1 is a linear or branched C_5 - C_{18} -alkyl group or a linear or branched C_5 - C_{18} -alkenyl; and
at least one of the radicals R^2 or R^3 is hydrogen.

4. Compounds as claimed in any of claims 1 to 3, wherein R^2 and R^3 are hydrogen.
5. Compounds as claimed in claim 4, wherein R^1 -X is $C_5H_{11}CH(C_3H_7)CH_2O$, or a radical based on a technical-grade C_{13} - C_{15} -oxo alcohol or a technical-grade or native C_{12} - C_{14} -alcohol or a C_{10} - or C_{13} -alcohol and having a degree of branching of about 1.5.
6. Compounds as claimed in claim 5, in which R^1 -X is $C_5H_{11}CH(C_3H_7)CH_2O$, and which are present as a mixture, in which
70 to 99% by weight of compounds in which C_5H_{11} has the meaning n- C_5H_{11} are present and
1 to 30% by weight of compounds in which C_5H_{11} has the meaning $C_2H_5CH(CH_3)CH_2$ and/or $CH_3CH(CH_3)CH_2CH_2$ are present.
7. Compounds as claimed in any of claims 1 to 6, wherein the substituent R^1 has an average degree of branching of from 0 to 2.5, preferably 0.2 to 1.6.
8. A method for producing compounds as claimed in any of claims 1 to 7, by reacting 1,2-diols of the formula II and functionalized with an R^1 -X- CH_2 group with phosgene in accordance with the following reaction scheme:



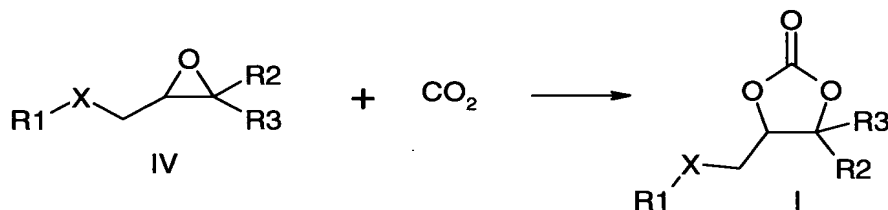
in which the symbols X, R^1 , R^2 and R^3 have the following meanings:

R^1 is a linear or branched, substituted or unsubstituted C_3 - C_{29} -alkyl group or a linear or branched, substituted or unsubstituted C_3 - C_{29} -alkenyl group;

R^2 and R^3 , independently of one another, are hydrogen or a linear or branched alkyl group;

X is chosen from the group consisting of O, $O(CH_2CHR^4O)_n$, S, NR^5 , COO and CONH, in which R^4 and R^5 are hydrogen, methyl, ethyl or propyl, and n is a number from 1 to 5, where mixtures of compounds with groups X of the formula $O(CH_2CHR^4O)_n$ are also included by the formula I, in which n has various numerical values.

9. A method for producing compounds as claimed in any of claims 1 to 6, by reacting epoxides of the formula IV according to the following reaction scheme with CO_2 using a catalyst:



in which the symbols X, R^1 , R^2 and R^3 have the following meanings:

R^1 is a linear or branched, substituted or unsubstituted C_3 - C_{29} -alkyl group or a linear or branched, substituted or unsubstituted C_3 - C_{29} -alkenyl group;

R^2 and R^3 , independently of one another, are hydrogen or a linear or branched alkyl group;

X is chosen from the group consisting of O, $O(CH_2CHR^4O)_n$, S, NR^5 , COO and CONH, in which R^4 and R^5 are hydrogen, methyl, ethyl or propyl, and n is a number from 1 to 5, where mixtures of compounds with groups X of the formula $O(CH_2CHR^4O)_n$ are also included by the formula I, in which n has various numerical values.

10. A method as claimed in claim 9, wherein the epoxide of the formula IV is produced by reacting epichlorohydrin with suitable alcohols, thiols, alcohols reacted with alkylene oxides, amines, carboxylic acids, their esters or their carboxamides and subsequent or simultaneous elimination of HCl.

11. A method as claimed in claim 10, wherein the suitable alcohols, thiols, alcohols reacted with alkylene oxides, amines, carboxylic acids or their esters or carboxamides are chosen from linear or branched aliphatic C₃-C₂₉-alcohols with an average degree of branching of from 0 to 2.5, where the alkyl chain can have further substituents which increase the suitability of the molecule as cosurfactant, but at least do not negatively influence it, Guerbet alcohols and their unsaturated analogs, and the substituted thiols corresponding to the suitable alcohols, alcohols reacted with alkylene oxides, amines, carboxylic acids and their carboxamides.
12. The use of compounds claimed in any of claims 1 to 7 or a mixture thereof as cosurfactant.
13. A household detergent, household cleaner, body-cleansing composition or bodycare composition comprising at least one compound as claimed in any of claims 1 to 7.
14. A detergent as claimed in claim 13 in solid, liquid, gel or paste form, preferably in the form of a powder, compact, granules, tablet or gel.
15. A detergent as claimed in claim 13 or 14, comprising 0.1 to 40% by weight, in particular 0.5 to 30% by weight, very particularly 1 to 20% by weight, based on the total amount of the formulation, of at least one compound as claimed in any of claims 1 to 7.
16. A household cleaner as claimed in claim 13 in liquid, gel or solid form, preferably in the form of a liquid, gel, powder or compact.
17. A household cleaner as claimed in claim 16 in the form of a hand dishwashing detergent, machine dishwashing detergent, metal degreaser, glass cleaner, floor cleaner, all-purpose cleaner, high-pressure cleaner, alkaline cleaner, acidic cleaner, spray degreaser, dairy cleaner, upholstery cleaner, plastic cleaner and bathroom cleaner.
18. A household cleaner as claimed in claim 16 or 17, comprising 0.01 to 40% by weight, preferably 0.1 to 25% by weight, based on the total formulation, of at least one compound as claimed in any of claims 1 to 7.

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19. A body-cleansing composition or bodycare composition in the form of a shampoo, shower or bath gel, shower or bath lotion, a lipstick, a cosmetic formulation with care and/or conditioning properties or a styling product, in particular a liquid soap, a care cream, a hair foam, hair gel, hair spray or after-treatment composition, a hair tonic, a lotion, treatment rinse, treatment pack, a split-end fluid, hair repair composition, hot oil treatment, hair-setting composition, hair colorant or permanent waving agent, comprising at least one compound as claimed in any of claims 1 to 7.